

Work Order ID 75144

October-18-11 7:17:13 AM

*ASAP****75144***

Page 1

Item ID: D412-711-101

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Replacement Bubble Window

Start Date: 10/18/11 Start Qty: 5.00

5

Cust Item ID:

Required Date: 10/21/11 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D412-711-101

A

100

0.00

100

DC

Document Control

Memo

Photocopy bluefiles and create labels
for PPP D412-711-101 Change 002

0.00

*8 11/10/26**Off Cor MLI 11-10-26*
(S)

110

0.00

110

HandThermo

Hand Finishing Thermoforming

HAND FINISHING THERMOFORMING

Memo

Set up Machine as per folio FTA 077 and D711W program using mould DT9640

0.00

*x5**DL*
11/10/19

120

0.00

120

HandThermo

Hand Finishing Thermoforming

HAND FINISHING THERMOFORMING

Memo

Cut Blanks to 36" by 39"

0.00

*x5**DL*
11/10/19

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QtyReject
QtyReject
NumberInsp.
Stamp

130

130

Thermoform

Thermoforming Machine

THERMOFORMING MACHINE

0.00

Memo

0.00

Thermoform as per Dwg. D412-711-101 using DT 9640 and Folio FTA
077 Dwg. Rev. A Folio Rev.A

x5

OK.
11/10/19

140

140

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

0.00

Memo

0.00

1) Check Surface finish for undesired marks, voids, dimples etc.2) Check
depth of bubble to ensure conformity to drawing tolerances.

x5

OK.
11/10/19

150

150

QC

Quality Control

QC8- Inspect parts - second check

0.00

Memo

0.00

x5

BB
11/10/19

W/O: 75144		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D412-711-101 PAR #: N/A Fault Category: 7 - Manufacturing NCR: Yes No DQA: 0 Date: 11.10.28
 Resolution: use - as - is Disposition: use - as - is QA: N/C Closed: OK Date: 11/10/31

NCR: 11-940		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
11/10/19	170	Measurement on 2 windows under spec by .002" process	1 11.10.25 G51042	ACCEPTABLE PER ATTACHED EMAIL FROM DS DATED 11.10.22.	N/A	S 11/10/25	1 11.10.25	S 11/10/25

NOTE: Date & initial all entries

Daryl Leger

From: David Shepherd <dshepherd@dartaero.com>
Sent: Saturday, October 22, 2011 1:06 AM
To: 'Marc Bellavance'
Cc: 'Leger, Daryl'; 'Downing, Eric'
Subject: RE: D412-711-101

Marc,

Per TR-D412-711-1, we used the 761 loads on the 711 bubble, so the testing was very conservative ... Therefore, I think we can accept this deviation.

Regards,
David

From: Marc Bellavance [<mailto:mbellavance@dartaero.com>]
Sent: October-20-11 6:43 AM
To: Shepherd, David
Cc: Leger, Daryl; Downing, Eric
Subject: D412-711-101

Hi David,

A few bubble windows were manufactured yesterday and two are out of tolerance... 0.002" under... Actual measurement recorded on the FAI sheet is 0.088" in lieu of 0.090" per ZN B7-1 on the drawing... I'm not authorized to approved this non-conformance so I must ask you: is this acceptable?

Thanks,

Marc Bellavance | Technical/Shop Support | T. 613-632-5200 | C. 613-676-0992 | F. 613-632-9311 | 1270 Aberdeen Street, Hawkesbury, Ontario, Canada, K6A 2K7



Product Documentation: Verify Revision Status/Download [HERE!](#)

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Tool #

Plan
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QtyReject
QtyReject
NumberInsp.
Stamp

160

160

HandThermo

Hand Finishing Thermoforming

HAND FINISHING THERMOFORMING

0.00

Memo

0.00

1) Trim off excess flange material
blemishes2) Buff out any light scratches or
3) Etch part number and batch number*HL*
11/10/25

170

170

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

0.00

Memo

0.00

1) Visually inspect for clarity, and proper formation.

HL
11/10/25
P60

180

180

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

1) Visually inspect for clarity, and proper formation.

8 ul 10/25

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Run Hours

Tool ID

Tool #

Plan
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QtyReject
QtyReject
NumberInsp.
Stamp

185

QC4- 100% Inspect kits for completeness

0.00

185

QC

Memo

0.00

Quality Control

190

Identify as per dwg & Stock Location: _____

0.00

190

Packaging

Memo

0.00

Packaging

200

QC21- Final Inspection - Work Order Release

0.00

200

QC

Memo

0.00

Quality Control

8 u/10/26

EJ

RVC

11/02/26 SD SD

11/10/27 HJ

ME
11-10-27

Picklist Print

October-18-11 7:17:13 AM

Page 1

Work Order ID: 75144

Parent Item: D412-711-101

Start Date: 10/18/11

Required Date: 10/21/11

Parent Item Name: Replacement Bubble Window

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP Rev:A New Issue 06-02-01 JLM
10/06/28 DL

IPP Rev. B. Manufacture in-house

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MACRLICS.236 Plexiglass G .236"		Purchased	No				sf	165.3333		106.66667			

Location

Loc Qty

Loc Code

therm

165.33333

116030

37.33333

117563

128

106.66667 of 11.

DL.
11/10/25

DART AEROSPACE LTD		Work Order: 75144
Description: Replacement Window		Part Number: D412-711-101
Inspection Dwg: D412-711-101	Rev: A	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST
THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than <u>N/A</u> "				
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

Measured by: <u>Sh</u>	Date: <u>11/10/19</u>
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TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.00	+/-0.030	<u>2.00"</u>	✓		<u>RULE TH-02</u>	
1.73	+/-0.030	<u>1.75"</u>	✓		<u>RULE TH-02</u>	
1.98	+/-0.030	<u>1.98"</u>	✓		<u>RULE TH-02</u>	
1.50	Min	<u>1.5"</u>	✓		<u>RULE TH-02</u>	
0.090	Min	<u>0.104"</u>	✓		<u>ULTRA</u>	<u>PTO</u> →
0.070	Min	<u>0.099"</u>	✓		<u>ULTRA</u>	
0.050	Min	<u>0.078"</u>	✓		<u>ULTRA</u>	
15.0	+/-0.5	<u>15.2"</u>	✓		<u>TAPE TH-05</u>	

Measured by: <u>Sh</u>	Date: <u>11/10/20</u>
Audited by: <u>EB</u>	Date: <u>11/10/21</u>
Preliminary Approval:	Date:

Rev	Date	Change	Revised by	Approved
B	10.10.08	New Issue	KJ	

